

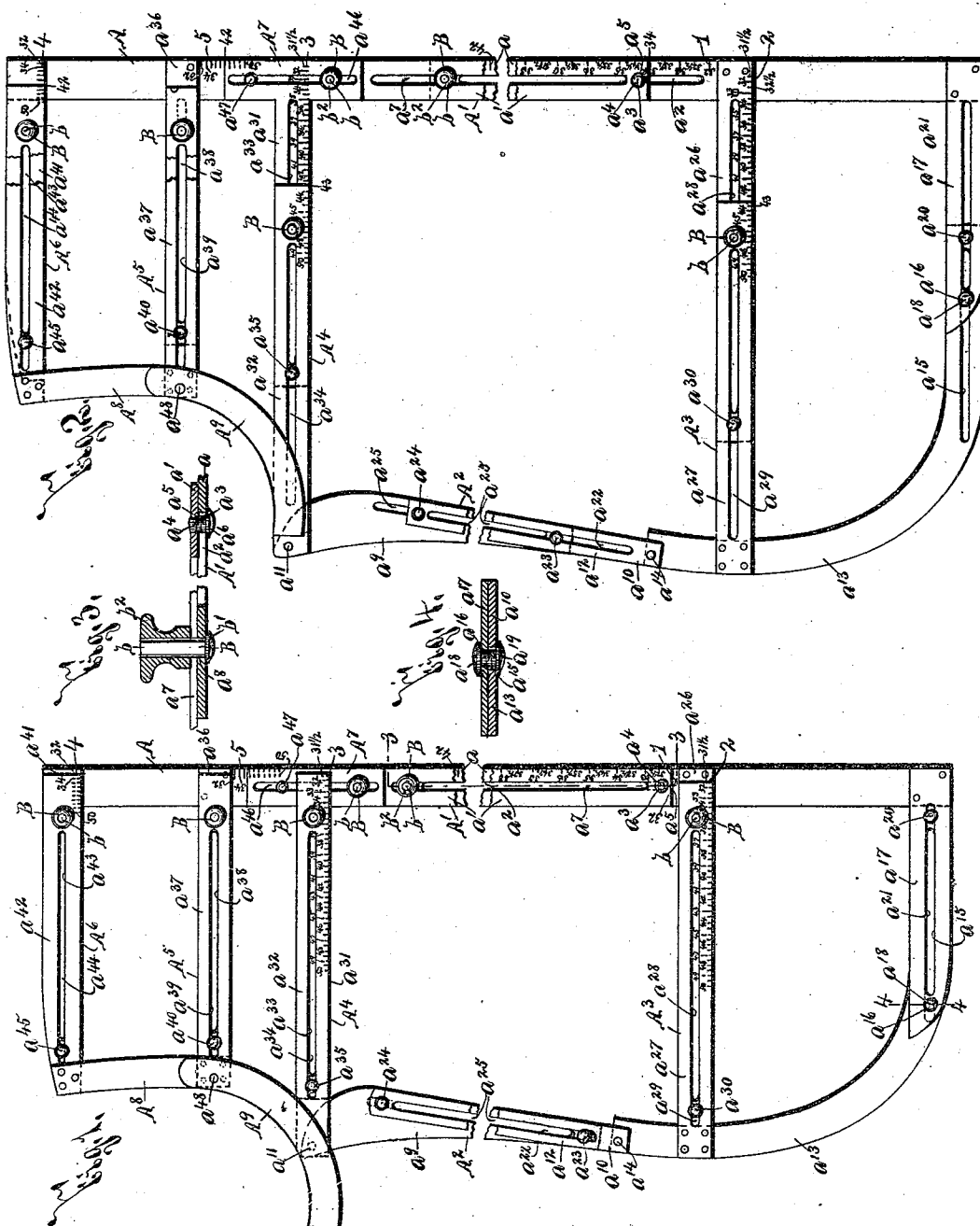
(No Model.)

2 Sheets—Sheet 1.

T. J. GOODWIN.
PATTERN FOR DRAFTING SHIRT BACKS.

No. 501,335.

Patented July 11, 1893.



(No Model.)

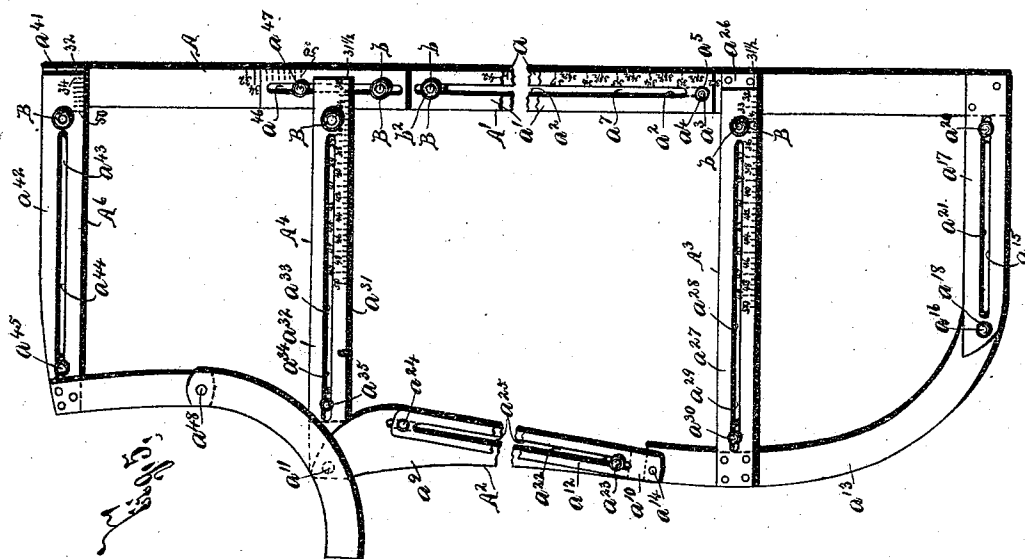
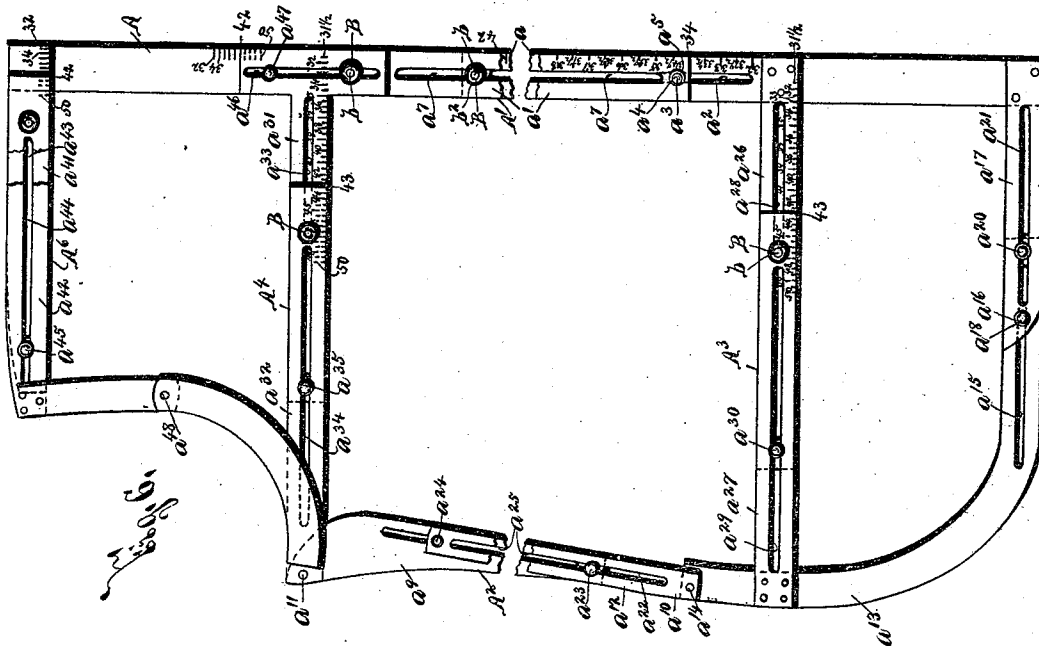
2 Sheets—Sheet 2.

T. J. GOODWIN.

PATTERN FOR DRAFTING SHIRT BACKS.

No. 501,335.

Patented July 11, 1893.



WITNESSES:

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UNITED STATES PATENT OFFICE.

TERENCE J. GOODWIN, OF SYRACUSE, NEW YORK.

PATTERN FOR DRAFTING SHIRT-BACKS.

SPECIFICATION forming part of Letters Patent No. 501,335, dated July 11, 1893.

Application filed December 29, 1892. Serial No. 456,614. (No model.)

To all whom it may concern:

Be it known that I, TERENCE J. GOODWIN, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Shirt-Patterns, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to improvements in shirt patterns for drafting the backs of shirts, and has for its object the production of a simple, practical, and effective device consisting of adjustable sections or plates, whereby a well fitting back for a custom made shirt can be drafted and then afterward cut by an operator possessing no more knowledge of the art of shirt drafting than that required in measuring the individual to be fitted, and adjusting the pattern to expose the number thereon corresponding to the ascertained measurements; and to this end it consists, essentially, in a lengthwisely adjustable side-plate extending lengthwise of the pattern and forming one edge thereof, lengthwisely adjustable cross-plates extending laterally from the side-plate, a lengthwisely adjustable side-plate at the opposite side of the pattern consisting of one section hinged at its upper end to the upper cross-plate, and a second section composed of a lower division secured to the lower cross-plate and formed with a curved outer edge having its lower extremity curved toward the former side-plate, and a second division having its lower end hinged to the upper end of the former division, and its upper end adjustably connected to the former section, a top plate composed of a section secured to the former side-plate, and a movable section rectilinearly guided on the former section, and connecting plates between the adjacent ends of the upper cross-plate and said top-plate.

The invention furthermore consists in the detail construction and arrangement of the parts, all as hereinafter more particularly described and pointed out in the claims.

In describing this invention, reference is had to the accompanying drawings forming a part of this specification, in which like letters and figures indicate corresponding parts in all the views.

Figures 1 and 2 are top plan views of my

improved pattern having its central portion broken out, the same being shown as normally contracted at Fig. 1 and as somewhat expanded or enlarged at Fig. 2. Figs. 3 and 4 are transverse vertical sectional views, taken on lines —3—3— and —4—4—, Fig. 1, and Figs. 5 and 6 are top plan views of a slightly different construction of my improved pattern having its central portion broken out, the same being shown as normally contracted at Fig. 5 and as somewhat expanded or enlarged at Fig. 6.

As set forth in my pending application, Serial No. 415,276, it is well known that, in order to supply the demand for custom made shirts, furnishing and other stores employ a custom shirt fitter whose salary greatly adds to the expense of such shirts, and whose time is employed in making patterns designed for drafting a shirt for one individual and worthless for drafting the shirt for another person.

The invention set forth in my aforesaid application consists of a pattern for drafting the fronts of custom made shirts, and my present invention consists of a pattern for drafting the backs of shirts, and is composed of adjustable plates or sections of peculiar construction or arrangement provided with scales, all as hereinafter clearly described and pointed out in the claims.

—A— represents my improved pattern, which consists of the lengthwisely adjustable side-plates —A'—A²— for regulating the length of the shirt back piece, the cross-plates —A³—A⁴— for determining the waist and chest widths, the top-plate —A⁶—, the plate —A⁷— for regulating the depth of the arm-hole, and the curved plates —A⁸—A⁹— for determining the curve of the arm-hole.

The side-plate —A'— is composed of the sections —a—a'— having their adjacent ends lapping one upon the other. The section —a— is provided with a scale —1— and a lengthwise slot —a²— and the section —a'— is formed with a lug —a³— movable in the slot —a²— and its lower edge is movable along the scale —1—. As best seen at Fig. 3 the lug —a³— consists of a screw-threaded shank —a⁴— engaged with a screw-threaded aperture —a⁵— in the section —a'—, and a head —a⁶— resting upon the bottom face of the section —a— on opposite sides of the slot

— a^2 —. The section — a' — is formed with a slot — a^7 —, and movable therein is a clamp — B —, best seen at Fig. 3, secured to the upper end of the section — a —. The clamp — B — preferably consists of a bolt — b — passed through the slot — a^7 — and an opening — a^8 — in the section — a —, and formed with a head — b' — bearing against the under face of the section — a —, and a nut — b^2 — movable upon the projecting end of the bolt — b — and bearing against the top face of the section — a' —. When desired to adjust the plate — A' — the clamp — B — is loosened, and the sections of the plate are moved length-

wisely until the figure of the scale — 1 — indicating the desired measurement is exposed directly in front of the lower edge of the section — a' —, whereupon the clamp — B — is tightened by screwing the nut — b^2 — toward the adjacent face of the section — a' —. The side-plate — A^2 — is composed of the sections — a^9 — and — a^{10} — having their adjacent ends lapped upon each other. The section — a^9 — is hinged at — a^{11} — to the cross-bar — A^4 —, presently described, and the section — a^{10} — is composed of upper and lower divisions — a^{12} — a^{13} — having their adjacent ends hinged together at — a^{14} —. The upper end of the division — a^{13} — curves very gradually toward the side-plate — A' —, its central portion curves much more abruptly toward said side-plate, and its bottom extremity is disposed in a plane at substantially right angles to the side-plate — A' —, and is provided with a slot — a^{15} — for receiving a lug — a^{16} — secured to the outer end of a laterally extending arm — a^{17} — rigidly secured to the lower end of the side-plate — A' —.

As best seen at Fig. 4 the lug — a^{16} — is formed at one extremity with a head — a^{18} — resting upon the top face of the arm — a^{17} —, and is provided at the other extremity with a head — a^{19} — bearing against the under face of the lower end of the division — a^{13} —. The extreme end of the lower extremity of the division — a^{13} — is to facilitate its rectilinear movement along the arm — a^{17} —, provided with a lug — a^{20} —, which is of similar construction to the lug — a^3 —, and is guided in a slot — a^{21} — in the arm — a^{17} —. The upper division — a^{12} — of the section — a^{10} — is formed with a slot — a^{22} — for receiving a lug — a^{23} —, which is of the same construction as the lug — a^3 —, and is secured to the lower end of the section — a^9 — of the side-bar — A^2 —; and the upper end of the division — a^{12} — is provided with a lug — a^{24} — also of similar construction to the lug — a^3 —, which is movable within a slot — a^{25} — in the section — a^9 —.

The cross-piece — A^3 — for regulating the waist width of the back piece is composed of sections — a^{26} — a^{27} — having their adjacent ends lapped one upon the other, and their opposite ends rigidly secured to the adjacent side-plates — A' — A^2 —. The section — a^{26} — is formed with a lengthwise slot — a^{28} — in which is movable the bolt — b — of a clamp

— B —; and the section — a^{27} — is formed with a lengthwise slot — a^{29} — for receiving a lug — a^{30} — secured to the projecting end of the section — a^{26} — and formed of similar construction to the lug — a^3 —, previously described.

Upon the section — a^{26} — is a scale — 2 —, along which the free end of the section — a^{27} — is movable as the plate — A^3 — is adjusted lengthwisely.

The cross-plate — A^4 — for regulating the chest width of the back piece is composed of sections — a^{31} — and — a^{32} — having their adjacent ends lapped upon each other, the opposite end of the section — a^{31} — being secured, as presently described, to the side-plate — A' —, and the opposite end of the section — a^{32} — being secured to the side-plate — A^2 — by the hinge pin — a^{11} — of the section — a^9 — of said side-plate. The sections — a^{31} — a^{32} — of the cross-plate — A^4 — are formed with slots — a^{33} — a^{34} — which correspond to the like slots — a^{28} — a^{29} — of the sections — a^{26} — a^{27} — of the cross-plate — A^3 —, and receive respectively a clamp — B —, and a lug — a^{35} — corresponding to the lug — a^{30} — of the section — a^{26} —. The section — a^{31} — of the cross-plate — A^4 — is also formed with a scale — 3 — along which the end side of the overlapping extremity of the section — a^{32} — is movable as the plate — A^4 — is adjusted lengthwisely.

The cross-plate — A^5 — for supporting the lower end of the plate — A^8 —, presently described, is composed of sections — a^{36} — a^{37} — having their adjacent ends lapped upon each other and their opposite ends secured respectively to the side-plate — A' — and to the top-plate — A^8 — presently described. These sections — a^{36} — a^{37} — are formed respectively with slots — a^{38} — a^{39} — similar to the slots — a^{33} — a^{34} — of the cross-plate — A^4 —, and the section — a^{36} — is provided with a lug — a^{40} —, which is of similar construction to the lug — a^{35} —, and is movable in the slot — a^{39} — of the section — a^{37} —. A suitable clamp — B — is movable in the slot — a^{38} — and securely fastens together the sections of the plate — A^5 — after the same is adjusted lengthwisely.

The plate — A^6 — for regulating the width of the top of the pattern — A — consists of the sections — a^{41} — a^{42} — having their adjacent ends lapped upon each other, the section — a^{41} — being rigidly secured to the upper end of the side-plate — A' — and the section — a^{42} — being rigidly secured to the upper end of the top-plate — A^8 —, previously mentioned. The sections — a^{41} — a^{42} — are formed with respective slots — a^{43} — a^{44} — for receiving the bolt — b — of a clamp — B — for securing said sections together when the top-plate is suitably adjusted, and for receiving a lug — a^{45} — secured to the projecting end of the section — a^{41} —. The upper edge of the extremity of the top-plate — A^6 — secured to the top-plate — A^8 — is curved downwardly, and the section — a^{41} — of the top-plate — A^6 — is formed with

a scale —4— along which the end edge of the overlapping portion of the section — a^{42} — is movable as the top plate is adjusted lengthwisely.

5 The plate — A^7 — for regulating the depth of the arm-hole is movable lengthwisely on a portion of the side-plate — A' —, and consists preferably of arms projecting laterally from the upper and lower edges of the section — a^{31} — of the cross-plate — A^4 —. This plate is formed with a lengthwise slot — a^{46} — for receiving a lug — a^{47} — upon the underlying portion of the side-plate — A' —, and the bolt — b — of a clamp — B — for securing said plate — A^7 — in its adjusted position.

15 The portion of the side-plate — A' — underlying the plate — A^7 — is formed with a scale —5— along which the upper edge of said plate is movable, and, when the plate is suitably adjusted so as to expose above its upper edge the proper graduation of the scale —5—, the clamp — B — firmly secures said plate in its adjusted position.

25 The plate — A^8 — extends in a plane substantially parallel with the side-plate — A' —, its outer edge is concavely curved, and, as previously stated, its upper extremity is secured to the section — a^{42} — of the top-plate — A^6 —, and its lower extremity is secured to the cross-plate — A^5 —. The plate — A^8 — is thus supported by the top-plate — A^6 — and the cross-plate — A^5 —, and, as said plates are adjusted lengthwisely, the position of the plate — A^8 — is varied.

35 The plate — A^9 — is hinged at — a^{48} — to the lower extremity of the plate — A^8 — and to the outer extremity of the plate — A^5 —, its outer edge is considerably concaved, and its free end is adapted to be registered with the outer end of the cross-plate — A^4 — and the upper end of the side-plate — A^2 —.

45 Upon reference to the drawings and the preceding description it will be readily apparent that the various scales of my pattern are placed on the underlying section or plate, and that above said scale is movable an edge of the overlying section or plate. As clearly seen in the drawings, these scales are suitably marked off by division lines, and, at intervals thereon, are figures for determining the corresponding dimensions of the shirt back when the edge of the overlying section or plate is moved directly above said lines.

55 The divisions of the scales 1, 2, 3, 4, 5, are marked respectively 32, $32\frac{1}{2}$, to 42; $31\frac{1}{2}$, 32, $32\frac{1}{2}$, to 50; $31\frac{1}{2}$, 32, to 50; 32, 34, to 50; 32, 34 to 50.

60 In operation, as will be readily perceived from the drawings, the length of the shirt back pattern is readily adjusted as the side-plates — A' — A^2 — are adjusted lengthwisely. The waist, chest, and top widths of the pattern are regulated by the lengthwise adjustment of the plates — A^3 — A^4 — A^6 —, and the depth of the arm-hole is varied by the adjustment of the plate — A^7 —.

It is evident that the described description

of clamp — B — is not an essential feature of my invention, as the clamps may be of any desired form, size, and construction suitable for permitting adjustment of the plates provided therewith and for firmly securing said plates or their component sections when adjusted. It is also evident that the cross-bar — A^5 —, which supports the lower end of the top-plate — A^8 —, may be dispensed with if desired, and I have, at Figs. 5 and 6, illustrated my improved pattern with said plate removed. As, with the exception of the removal of the cross-plate — A^5 —, the pattern shown at Figs. 5 and 4, is identical with that shown at Figs. 1 and 2, I have lettered the corresponding parts of said pattern similarly to the corresponding parts of the pattern shown at Figs. 1 and 2.

85 In order that the use of my pattern may be more apparent I will now proceed to describe its adjustment, and, in such description, will suppose for the purpose of illustration that it is desirable to draft a shirt back of the following dimensions: length thirty-four inches, waist forty-three, chest forty-two. The sections of the plates — A' — A^3 — A^4 — A^6 — and — A^7 — provided with the respective scales 1, 2, 3, 4, and 5 are adjusted, as previously described, and, as shown at Fig. 2, until the respective division lines 34, 43, 43, 42, 42, show just in advance of the end edges of the sections — a' — a^{27} — a^{32} — a^{42} —, and the upper edge of the plate — A^7 —. The pattern is then at the required adjustment, and, after being placed upon the fabric from which the shirt back is to be made, the outline of the pattern is marked thereon. Care must be used, however, to hold the plate — A^9 —, so that its free end registers with the upper end of the section — a^{32} — of the plate — A^3 —.

The pattern produced by marking the outline of my adjustable pattern upon a fabric is but one-half of the pattern required to form the shirt back, and the other half may be formed by drafting the same in like manner, or by folding the fabric and cutting through both the upper and lower folds thereof.

115 The operation of my invention will be readily perceived from the foregoing description and upon reference to the drawings, and it will be readily evident that a person having only sufficient intelligence to measure an individual desiring a custom made shirt can readily move the scale bearing plates of my pattern to the desired adjustment, and then quickly draft a single shirt back or any required number of shirt backs, and that the pattern may be quickly changed to conform with the measurement of another individual. It is thus evident that my improved pattern substantially obviates the necessity of a custom shirt fitter for forming shirt backs and greatly reduces the expense incidental to the manufacture of custom made shirts, and that, if desired, ready made shirt backs may be drafted in the same manner by the use of my improved pattern.

The detail construction and arrangement of this pattern may be somewhat varied from that shown and described. Hence I do not herein limit myself to the exact detail construction and arrangement thereof.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a pattern for the back piece of a shirt, the combination of the lengthwisely adjustable side-plate —A'— extending lengthwise of the pattern, lengthwisely adjustable cross-plates —A³—A⁴— extending laterally from the side-plate —A'—, the side-plate —A²— consisting of a section —a⁹— hinged at its upper end to the cross-plate —A⁴— and the section —a¹⁰— composed of the lower division —a¹³— secured to the cross-plate —A³— and formed with a curved outer edge having its lower extremity curved toward the side-plate —A'— and the division —a¹²— having its lower end hinged to the upper end of the division —a¹³— and its upper end adjustably connected to the section —a⁹—, the top plate —A⁶— composed of the section —a⁴¹— secured to the side-plate —A'—, and the movable section —a⁴²— rectilinearly guided on the former section, and connecting plates —A⁸—A⁹— between the adjacent ends of the plates —A²—A⁶—, substantially as and for the purpose described.

2. In a pattern for the back piece of a shirt, the combination of the lengthwisely adjustable side-plate —A'— extending lengthwise of the pattern, lengthwisely adjustable cross-plates —A³—A⁴— extending laterally from the side-plate —A'—, the side-plate —A²— consisting of a section —a⁹— hinged at its upper end to the cross-plate —A⁴— and the section —a¹⁰— composed of the lower division —a¹³— secured to the cross-plate —A³— and formed with a curved outer edge having its lower extremity curved toward the side-plate —A'— and the division —a¹²— having its lower end hinged to the upper end of the division —a¹³— and its upper end adjustably connected to the section —a⁹—, the top-plate —A⁶— composed of the section —a⁴¹— secured to the side-plate —A'—, and the movable section —a⁴²— rectilinearly guided on the former section, a top plate —A⁸— having one end secured to the outer end of the movable section —a⁴²— of the top-plate —A⁶—, and a plate —A⁹— formed with a concaved outer edge and having one end hinged to the top-plate —A⁸— and the other adapted to register with the end of the cross-plate —A⁴—, substantially as and for the purpose set forth.

3. In a pattern for the back piece of a shirt, the combination of the lengthwisely adjustable side-plate —A'— extending lengthwise of the pattern, and formed at its lower end with a laterally projecting arm —a¹⁷—, lengthwisely adjustable cross-plates —A³—A⁴— extending laterally from the side-plate —A'— above the arm —a¹⁷—, the side-plate —A²— consisting of a section —a⁹— hinged at its

upper end to the cross-plate —A⁴— and the section —a¹⁰— composed of the upper division —a¹²— having its upper end adjustably connected to the section —a⁹— and the lower division —a¹³— secured to the cross-plate —A³— and having its upper end hinged to the lower end of the division —a¹²— and its lower end formed with a laterally extending extremity projecting toward the side-plate —A'— and adjustable lengthwise on the arm —a¹⁷—, said lower division —a¹³— being formed with a curved outer edge, the top-plate —A⁶— composed of the section —a⁴¹— secured to the side-plate —A'—, and the movable section —a⁴²— rectilinearly guided on the former section, and connecting plates —A⁸—A⁹— between the adjacent ends of the plates —A'—A⁶—, substantially as set forth.

4. In a pattern for the back piece of a shirt, the combination of the lengthwisely adjustable side-plate —A'— extending lengthwise of the pattern, lengthwisely adjustable cross-plates —A³—A⁴— extending laterally from the side-plate —A'—, the side-plate —A²— consisting of a section —a⁹— hinged at its upper end to the cross-plate —A⁴— and the section —a¹⁰— composed of the lower division —a¹³— secured to the cross-plate —A³— and formed with a curved outer edge having its lower extremity curved toward the side-plate —A'— and the division —a¹²— having its lower end hinged to the upper end of the division —a¹³— and its upper end adjustably connected to the section —a⁹—, and the top-plate —A⁶— composed of the section —a⁴¹— secured to the side-plate —A'—, a movable section —a⁴²— rectilinearly guided on the former section, a lengthwisely adjustable cross-plate —A⁵—, a top-plate —A⁸— having one end secured to the outer end of the movable section —a⁴²— of the top-plate —A⁶— and the other end secured to the outer end of the cross-plate —A⁵—, and a curved plate —A⁹— having one end hinged to the cross-plate —A⁵— and the other adapted to register with the end of the cross-plate —A⁴—, substantially as and for the purpose described.

5. In a pattern for the back piece of a shirt, the combination of the lengthwisely adjustable side-plate —A'— extending lengthwise of the pattern, lengthwisely adjustable cross-plates —A³—A⁴— extending laterally from the side-plate —A'—, the side-plate —A²— consisting of a section —a⁹— hinged at its upper end to the cross-plate —A⁴— and the section —a¹⁰— composed of the lower division —a¹³— secured to the cross-plate —A³— and formed with a curved outer edge having its lower extremity curved toward the side-plate —A'— and the division —a¹²— having its lower end hinged to the upper end of the division —a¹³— and its upper end adjustably connected to the section —a⁹—, the top-plate —A⁶— composed of the section —a⁴¹— secured to the side-plate —A'—, and a movable section —a⁴²— rectilinearly guided on the former section, connecting plates —A⁸—A⁹—

between the adjacent ends of the plates —A²—A⁶—, and the plate —A⁷— adjustable vertically on the side-plate —A'— and secured to one of the sections of the cross-plate —A⁴—, substantially as specified.

6. In a pattern for the back piece of a shirt, the combination of the lengthwisely adjustable side-plate —A'— extending lengthwise of the pattern, lengthwisely adjustable cross-plates —A³—A⁴— extending laterally from the side-plate —A'—, the side-plate —A²— consisting of a section —a⁹— hinged at its upper end to the cross-plate —A⁴— and the section —a¹⁰— composed of the lower division —a¹³— secured to the cross-plate —A³— and formed with a curved outer edge having its lower extremity curved toward the side-plate —A'— and the division —a¹²— having its lower end hinged to the upper end of the division —a¹³— and its upper end adjustably connected to the section —a⁹—, the top plate —A⁶— composed of the section —a⁴¹— se-

cured to the side-plate —A'—, a movable section —a⁴²— rectilinearly guided on the former section, a plate —A⁸— having one end rigidly secured to the outer end of the movable section —a⁴²— of the top-plate —A⁶—, a plate —A⁹— formed with a concaved outer edge having one end hinged to the top-plate —A⁸— and the other adapted to register with the end of the cross-plate —A⁴—, and the plate —A⁷— adjustable vertically on the side-plate —A'— and secured to one of the sections of the cross-plate —A⁴—, substantially as and for the purpose described.

In testimony whereof I have hereunto signed my name, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 27th day of December, 1892.

TERENCE J. GOODWIN.

Witnesses:

CLARK H. NORTON,
M. BAXTER.